

WHAT IS CLAIMED IS:

1. A radio data transmission method comprising:
receiving information corresponding to a data amount of a buffer and a
characteristic of data to be transmitted from a plurality of logical channels; and
5 selecting data to transmit from one of the plurality of channels based at
least on the data characteristic of each channel.

2. The method of claim 1, wherein the data characteristic represents whether
re-transmission data exists for a specific logical channel.

3. The method of claim 2, wherein the data characteristic comprises one of a
True indication representing that the re-transmission data exists and a False indication
representing that the re-transmission data does not exist.

4. The method of claim 1, further comprising sending the information from
each of the logical channels to a transport channel.

5. The method of claim 4, wherein sending the information comprises
sending a MAC_STATUS_RESP Primitive.

6. The method of claim 5, wherein the MAC_STATUS_RESP Primitive
includes information of the data characteristic.

7. The method of claim 6, wherein said MAC_STATUS_RESP Primitive further includes information representing an amount of re-transmission data.

8. The method of claim 1, wherein selecting data comprises:
5 judging whether a logical channel includes re-transmission data; and
selecting one of the logical channels based on priority of the logical
channel that includes the re-transmission data.

9. The method of claim 8, wherein judging whether the logical channel
10 includes re-transmission data is based on one of a True indication and a False indication.

10. The method of claim 1, wherein selecting data is based on whether re-transmission data exist rather than by a priority of the logical channel.

11. A data transmission method comprising:
15 selecting data of a specific logical channel based on priorities of logical
channels and whether re-transmission data exists for each logical channel; and
transmitting the selected data from the transport channel.

12. The method of claim 11, further comprising sending information from
20 each of the logical channels to a transport channel, and the selecting of the data is
performed by the transport channel.

13. The method of claim 12, wherein sending the information comprises sending a MAC_STATUS_RESP Primitive.

14. The method of claim 13, wherein the MAC_STATUS_RESP Primitive includes information regarding the existence of re-transmission data.

15. The method of claim 14, wherein the MAC_STATUS_RESP Primitive further includes information representing an amount of re-transmission data.

16. The method of claim 11, further comprising prioritizing a first logical channel having re-transmission data with a higher priority than a second logical channel without re-transmission data, and transmitting data of the first logical channel prior to transmitting data of the second logical channel.

17. The method of claim 11, wherein the selecting of data of the specific logical channel is performed based on priorities of corresponding logical channels if a plurality of logical channels include re-transmission data.

18. The method of claim 11, wherein the selection of the specific logical channel is performed based on priorities of each logical channel if logical channels do not include re-transmission data.

19. A method comprising:

receiving information regarding data characteristics of a plurality of logical channels; and

selecting one of the logical channels based at least on the data characteristics of each of the logical channels.

20. The method of claim 19, wherein the data characteristics represent whether re-transmission data exists for a specific logical channel.

21. The method of claim 19, further comprising sending the information from each of the logical channels to the transport channel.

22. The method of claim 19, wherein selecting one of the logical channels comprises:

judging whether a logical channel includes re-transmission data; and

selecting one of the logical channels based on priorities of the logical channels that include the re-transmission data.

23. A device to transmit data comprising:

a plurality of logical channels each to transmit information regarding a data characteristic of the respective logical channel; and

a transport channel to select one of the logical channels based at least on the data characteristic of the selected logical channel.

24. The device of claim 23, wherein the data characteristic represents whether re-transmission data exists for the selected logical channel.

25. The device of claim 23, wherein the transport channel judges whether the logical channels include re-transmission data and the transport channel selects one of the logical channels based on priorities of the logical channels that include the re-transmission data.